EA Form R 1/2007

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: Montana Board of Land Commissioners
% Tom Hughes
PO Box 201601
Helena MT 59620

2. Type of action: Application for Beneficial water user Permit No. **40S 30031187**

3. Water source name: Missouri River, below Ft. Peck Dam

4. Location affected by project: 58.6 Acres E2N2 Sec 36 T27N R58E, Roosevelt County

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

This project is to pump water out of the Missouri River for agricultural irrigation on 58.6 acres. This application is to use 1200 gpm up to168.7 acre-feet of water per annum from April 15th to October 15th. The point of diversion is located in the SENESE of Section 26 T27N R58E and the place of use is located in the E2NE of Sec 36, T27N, R57E, Roosevelt County. The place of use is located on State Trust Lands and is leased to Miles Panasuk, owner/operator of the pivot and adjacent irrigated lands. This irrigation system has been in place and successfully operated since 1991.

The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)

The Montana Natural Heritage Program
The Montana Department of Environmental Quality Website (TMDL 303d Listing)
The Montana Department of Fish, Wildlife & Parks (Fisheries Listings)

Contact with Montana State Historic Preservation Office was not requested because this project has been in existence for 17 plus years and there will not be any further site disturbance if this application is authorized.

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity *- Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

Determination: The Missouri River is not identified as a chronically or periodically dewatered stream by the Montana Department of Fish, Wildlife & Parks. The DFWP has a water reservation on this portion of the Missouri River for 5,178 cfs to maintain instream flows. It is unlikely that 1,200 gpm (2.2 cfs) would have an impact on the surface water flows.

Water quality *- Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

Determination: This reach of the Missouri River is listed on the 1996 Montana 303(d) list as fully supporting agriculture, drinking water and industrial projects, partially supporting aquatic life and warm water fishery. An assessment of the primary contact recreation has not been completed. The probable sources for the impairment are flow regulation, agriculture, municipal point sources, natural sources and streambank modification/destabilization.
There will not be any stream bank disturbance if this permit is issued; the applicant will use an existing pump site.

Groundwater *- Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

Determination: This surface water appropriation should have no significant impact on groundwater in the area.

DIVERSION WORKS *- Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

Determination: The diversion means from the Missouri River consists of two floating Berkley pumps capable of diverting 9,000gpm. Water is then moved through a series of ditch segments to a 1 acre-foot pumping pit. A 30 hp, 1200 gpm Cornell pump is then used to divert water from the pit through a buried pipeline to the existing pivot. There will not be any new impacts to the surrounding environment as this system has been in place and operated for the past 17 years. This type of diversion is common for agricultural irrigation on the Missouri River and the Corp of Engineers approve of this type of diversion.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species *- Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

Determination: A report received from the Montana Natural Heritage Program indicates there are nine species of special concern within the general area of the project. The U.S Forest Service lists the Least Tern and the Pallid sturgeon as endangered, the Sturgeon Chub as sensitive, and Piping Plover as threatened. The U.S. Bureau of Land Management list Least Tern, Piping Plover and the Pallid Sturgeon as special status and the Sicklefin Chub, Sauger, Sturgeon Chub, Blue Sucker and the Paddlefish as sensitive. The Nannyberry shrub was listed as uncommon and of special concern by the Natural Heritage Program.

It is generally believed that the pallid sturgeon have not successfully spawned in the Missouri River, in the reach area of this project, since the construction of Fort Peck Dam due to the altered stream flows and reduced sediment levels. The Pallid sturgeon prefers warmer, turbid water.

The least tern and the piping plover prefer nesting sites on barren islands and sandbars. Pump sites are typically set in deeper water. The shallow water around islands and sandbars are avoided.

Due historical use of this project and the regulated releases from the dam, it is unlikely that this appropriation would impact the above listed species.

Wetlands *- Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: No known wetlands exist in the project area.

Ponds *- For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: Not applicable.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE *- Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

Determination: According to the Roosevelt County Soil Survey, the predominant soil types under the project are Lohler silty clay, Haverlon silt loam and Trembles fine sandy loam. These soil types are moderately to well drained, nearly level soils found on flood plains and formed in alluvium.

Permeability is generally slow to moderate and the available water capacity is moderate to high. Runoff is slow to very slow and the hazard of water erosion is slight. The hazard of erosion from blowing is moderate to slight. These soil types are used for both dry land and irrigated crops and are not prone to saline seep.

Irrigation enhances crop cover during the growing season and provides more protection from wind and water erosion. Irrigation also increases plant residues returned to the soil. Soil structure is improved, microbe populations benefit from the added food source, and nitrogen fertility is enhanced.

There will be no further degradation of the soil quality, stability or moisture content.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

Determination: The land is currently irrigated farmland. This application is to cover irrigated acres that do not have a water right associated to them. This project is complete and has been in service for the past 17 years. There will be no additional disturbance to the vegetative cover.

The control of noxious weeds is the responsibility of the property owner.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: The pumps are motor driven and there will be no deterioration of air quality as a result of this appropriation.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

Determination: This project is in place and has been operational for the past 17 years. There will not be any new development. There will be no further degradation of this site.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: No additional impacts on other environmental resources were identified.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: There are no known local environmental plans or goals in this area.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: This project will have no impact on recreational or wilderness activities.

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: This project will have no impact on human health.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*
*Yes___ No_**X**__ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

Determination: There are no additional government regulatory impacts on private property rights associated with this application.

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) *Cultural uniqueness and diversity?* **No significant impact.**

(b) *Local and state tax base and tax revenues?* **No significant impact.**

(c) *Existing land uses?* **No significant impact.**

(d) *Quantity and distribution of employment?* **No significant impact.**

(e) *Distribution and density of population and housing?* **No significant impact.**

(f) *Demands for government services?* **No significant impact**.

(g) *Industrial and commercial activity?* **No significant impact.**

(h) *Utilities?* **No significant impact.**

(i) *Transportation?* **No significant impact.**

(j) *Safety?* **No significant impact.**

(k) *Other appropriate social and economic circumstances?* No significant impact.

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts: No secondary impacts have been identified.

Cumulative Impacts: No cumulative impacts have been identified.

3. ***Describe any mitigation/stipulation measures:*** NONE

4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*** Under the no action alternative, the applicant would not have the benefit of water for an existing irrigation system. This application is for ½ of the pivot, it would not be economically feasible to operate the system at ½ its capacity.

PART III. Conclusion

1. Preferred Alternative

The preferred alternative would be the issuance of a water use permit provided the applicant proves the criteria in 85-2-311, MCA are met.

2 Comments and Responses

3. ***Finding:***

*Yes___ No_**X**__ Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: No significant impacts have been identified; therefore an EIS is not necessary.

Name of person(s) responsible for preparation of EA:

Name: Ann L. Kulczyk
Title: Water Resource Specialist
Date: 14 August 2008